

Title (en)

Abrasion resistant articles based on silicon nitride.

Title (de)

Abriebbeständige Artikel auf der Basis von Siliziumnitrid.

Title (fr)

Articles résistant à l'abrasion à base de nitrure de silicium.

Publication

EP 0043583 A1 19820113 (EN)

Application

EP 81105258 A 19810707

Priority

US 16725880 A 19800709

Abstract (en)

A composite article and cutting tool are prepared by densification to form a body consisting essentially of particles of hard refractory material uniformly distributed in a matrix consisting essentially of a first phase and a second phase, said first phase consisting essentially of crystalline silicon nitride and said second phase being an intergranular refractory phase comprising silicon nitride and a suitable densification aid comprising magnesium oxide and silicon dioxide.

IPC 1-7

C04B 35/58; **C04B 31/16**

IPC 8 full level

C04B 35/584 (2006.01); **C04B 35/593** (2006.01)

CPC (source: EP)

C04B 35/584 (2013.01); **C04B 35/593** (2013.01)

Citation (search report)

- US 4184882 A 19800122 - LANGE FREDERICK F [US]
- WO 8000079 A1 19800124 - GTE LABORATORIES INC [US]
- EP 0009859 A1 19800416 - FORD MOTOR CO [GB], et al
- US 4099979 A 19780711 - LANGE FREDERICK F, et al
- SU 537986 A1 19761205
- US 4179301 A 19791218 - BULJAN SERGEJ-TOMISLAV [US]

Cited by

EP0095128A1

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

EP 0043583 A1 19820113; CA 1155874 A 19831025; JP S5751175 A 19820325

DOCDB simple family (application)

EP 81105258 A 19810707; CA 379091 A 19810605; JP 10572981 A 19810708